FIG.1A

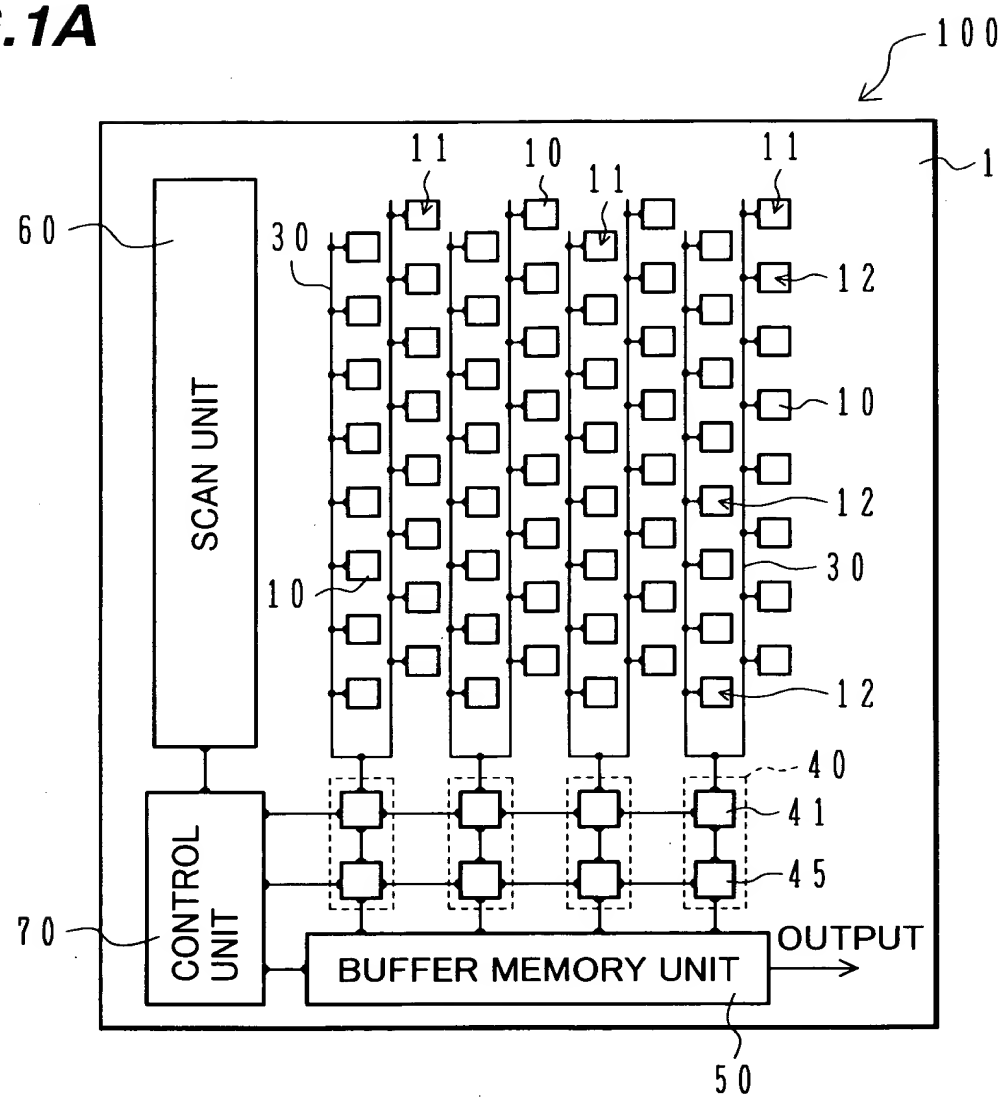
100
1
11
10
11
11
60
30
12
10
12
30
10
12
40
41
45
70
CONTROL UNIT
SCAN UNIT
BUFFER MEMORY UNIT
OUTPUT
50

FIG.1B

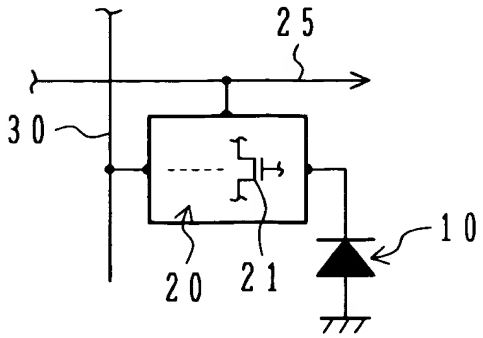
25
30
10
20
21

FIG.2

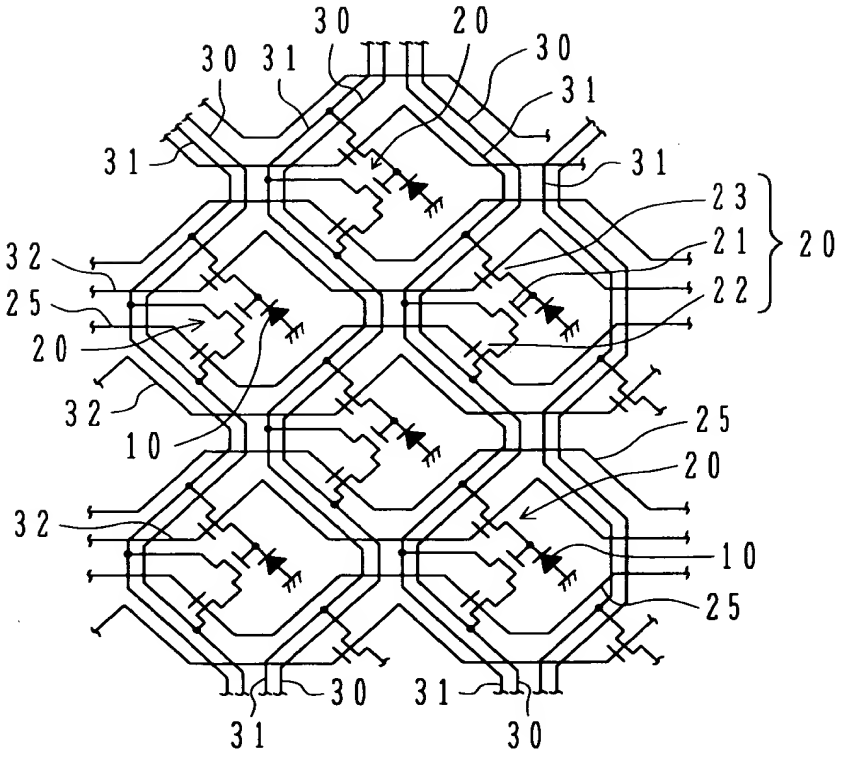
30
20
30
31
30
31
31
31
23
21
22
20
32
25
20
32
10
25
20
32
10
25
30
31
31
30

FIG.3

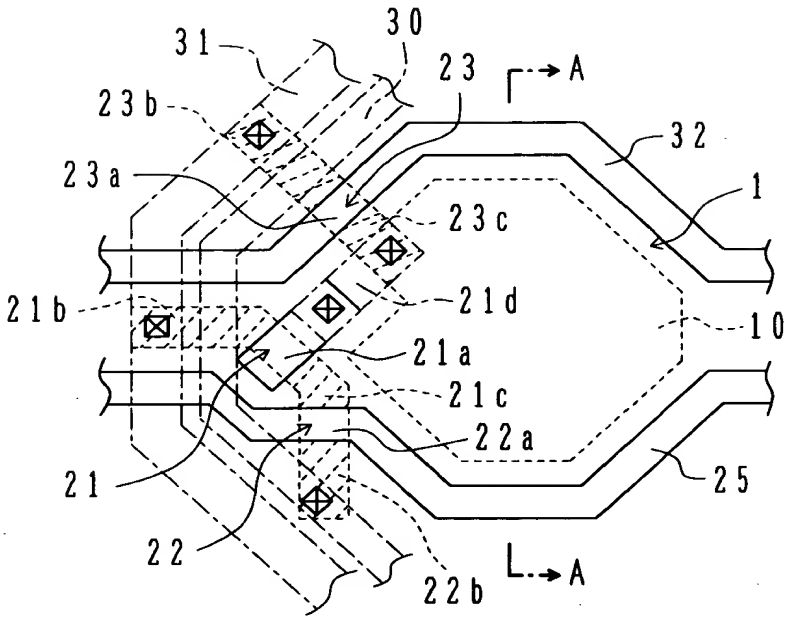

FIG.4

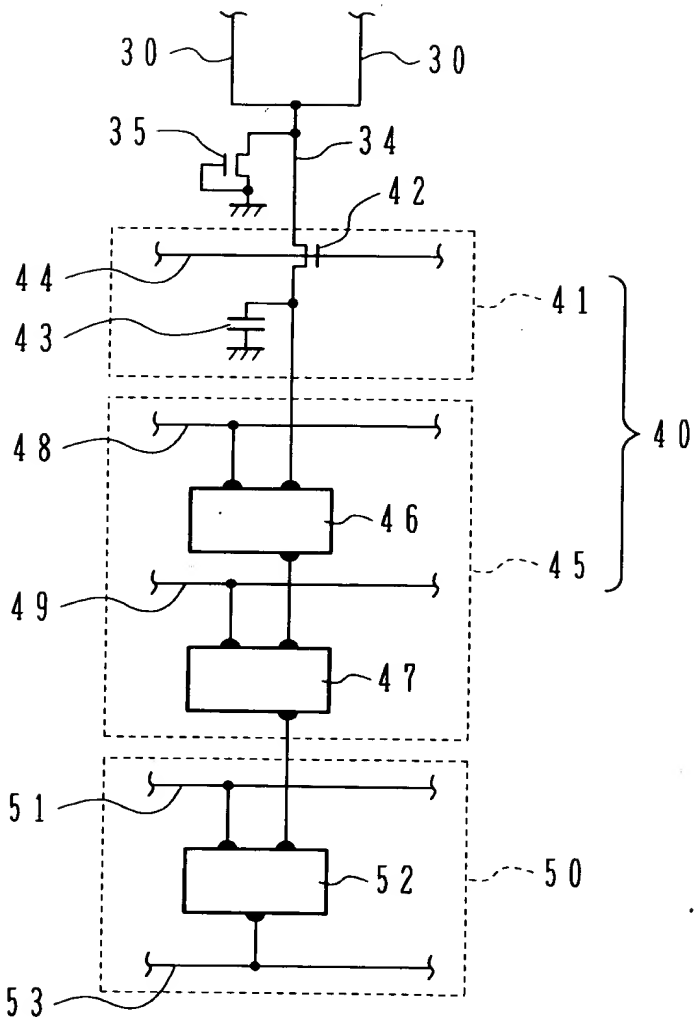

FIG.5

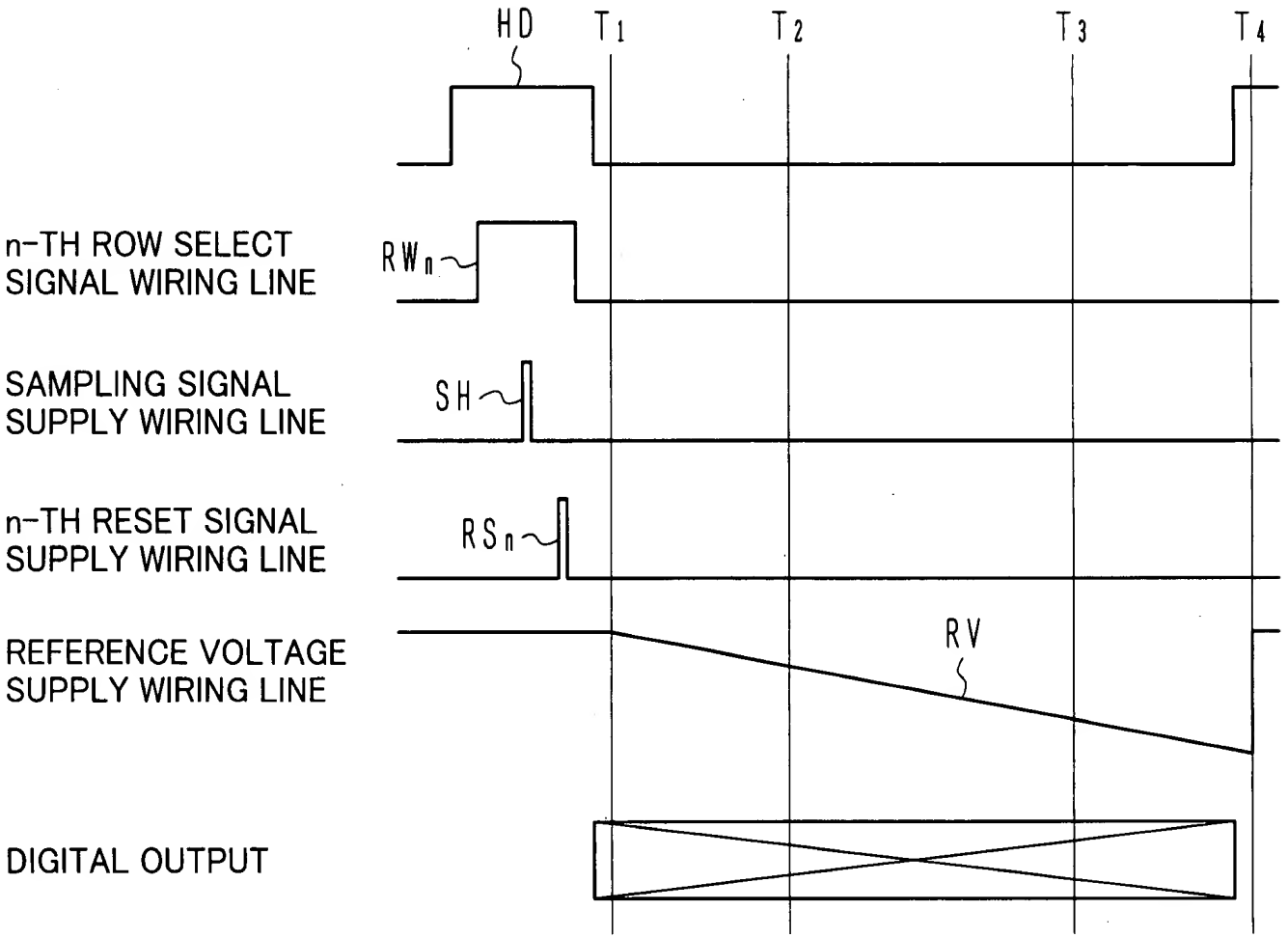
HD
T1
T2
T3
T4
n-TH ROW SELECT SIGNAL WIRING LINE
RWn
SAMPLING SIGNAL SUPPLY WIRING LINE
SH
n-TH RESET SIGNAL SUPPLY WIRING LINE
RSn
REFERENCE VOLTAGE SUPPLY WIRING LINE
RV
DIGITAL OUTPUT

FIG.6

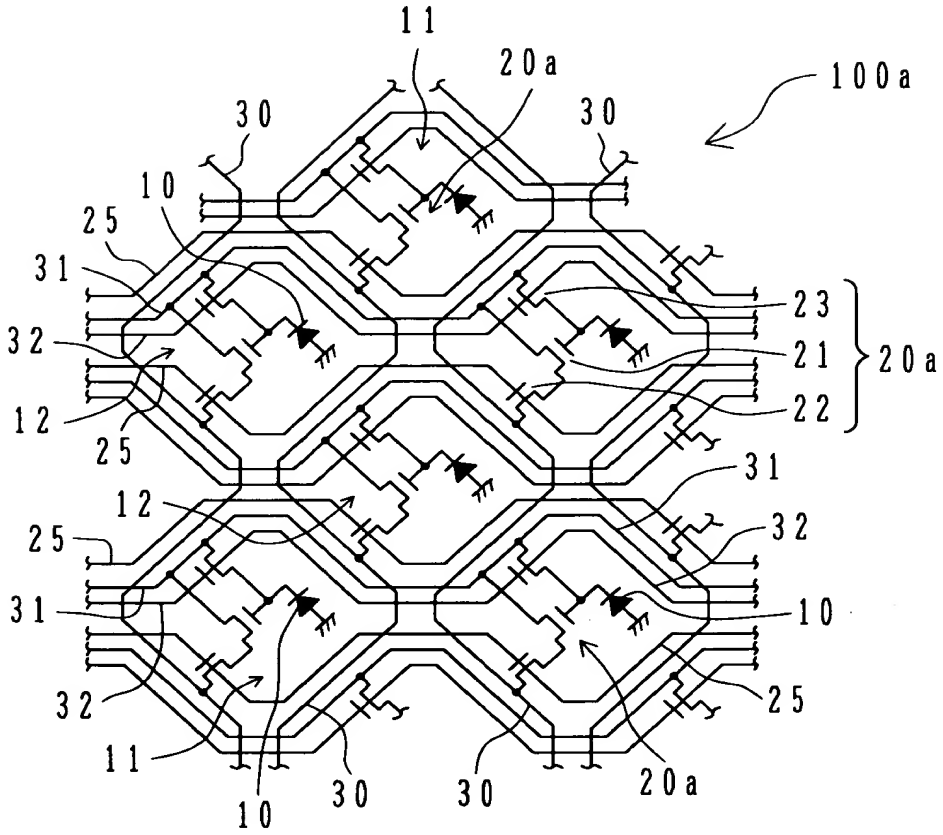
11
20a
100a
30
30
10
25
31
32
12
25
23
21
22
20a
31
12
25
32
31
10
32
25
11
10
30
30
20a

FIG.7

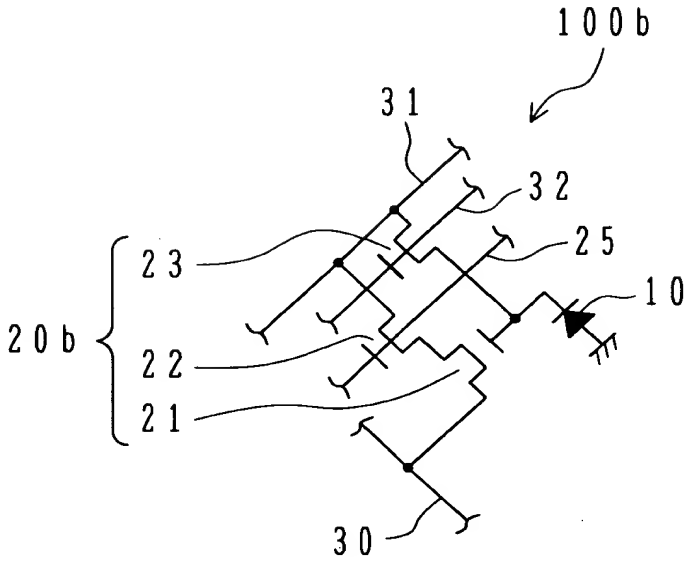

FIG.8A

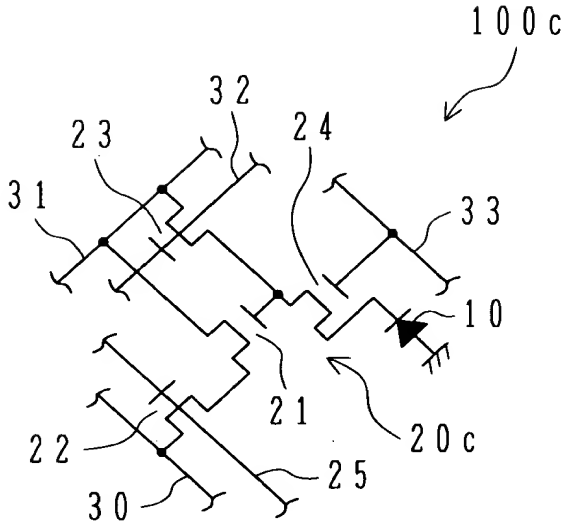
100c
32
23
24
31
33
10
21
20c
22
25
30

FIG.8B

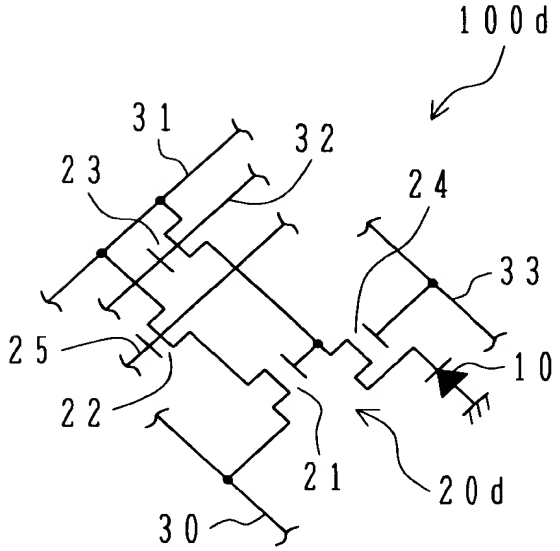
100d
31
32
23
24
33
25
10
22
21
20d
30

FIG.9

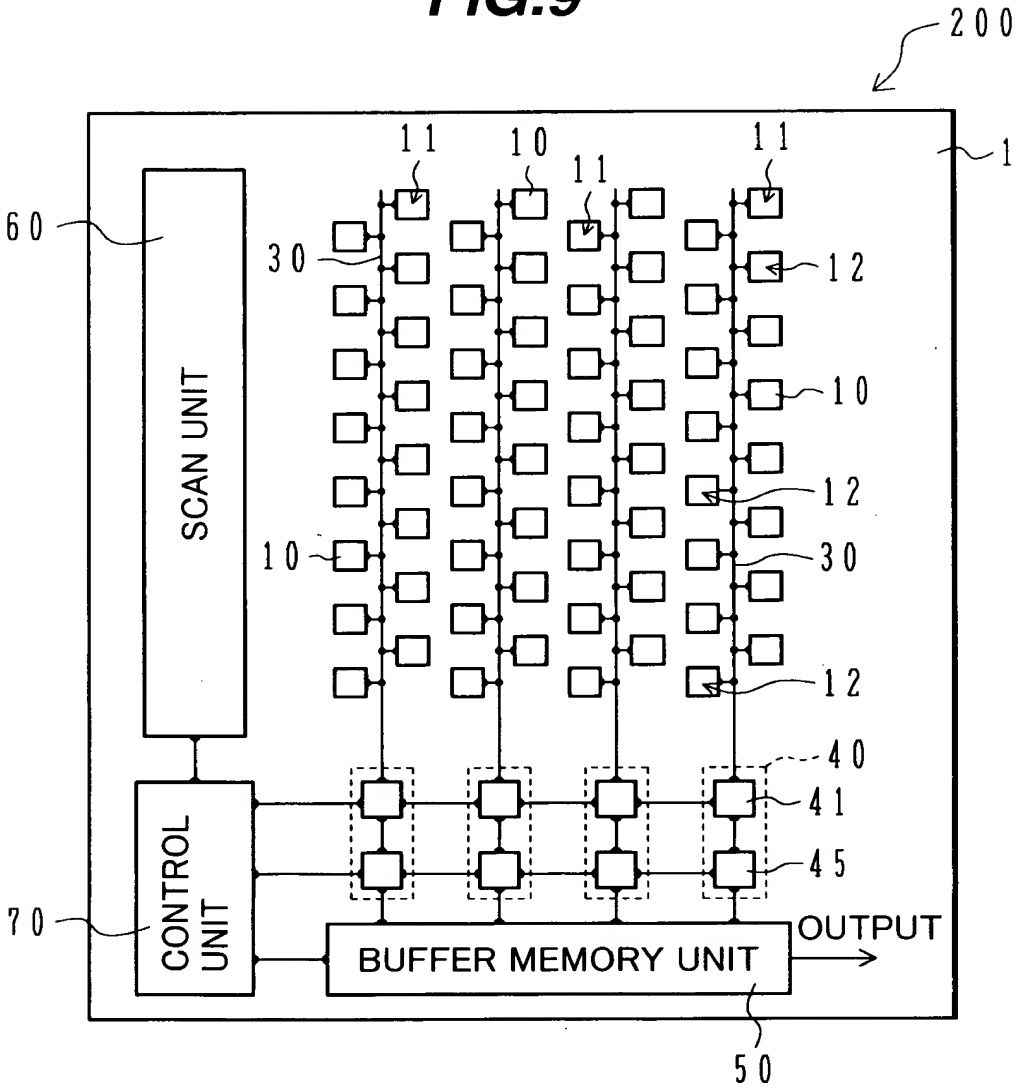
200
1
11
10
11
11
60
30
12
SCAN UNIT
10
12
10
30
12
40
41
45
CONTROL UNIT
70
BUFFER MEMORY UNIT
OUTPUT
50

FIG.10

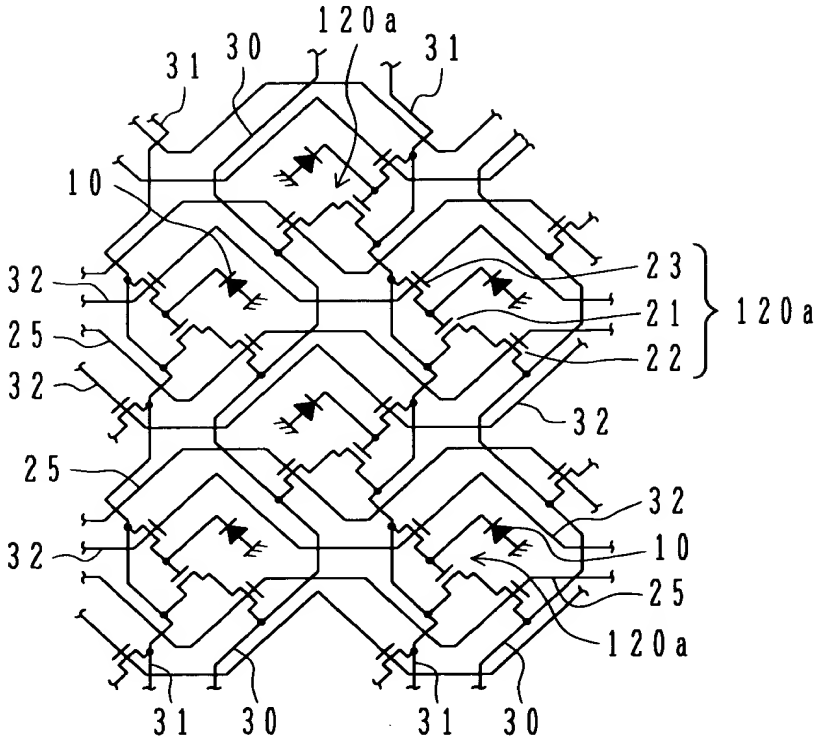
120a
31
30
120a
31
10
32
25
32
23
21
22
120a
32
25
32
32
10
25
120a
31
30
31
30

FIG.11

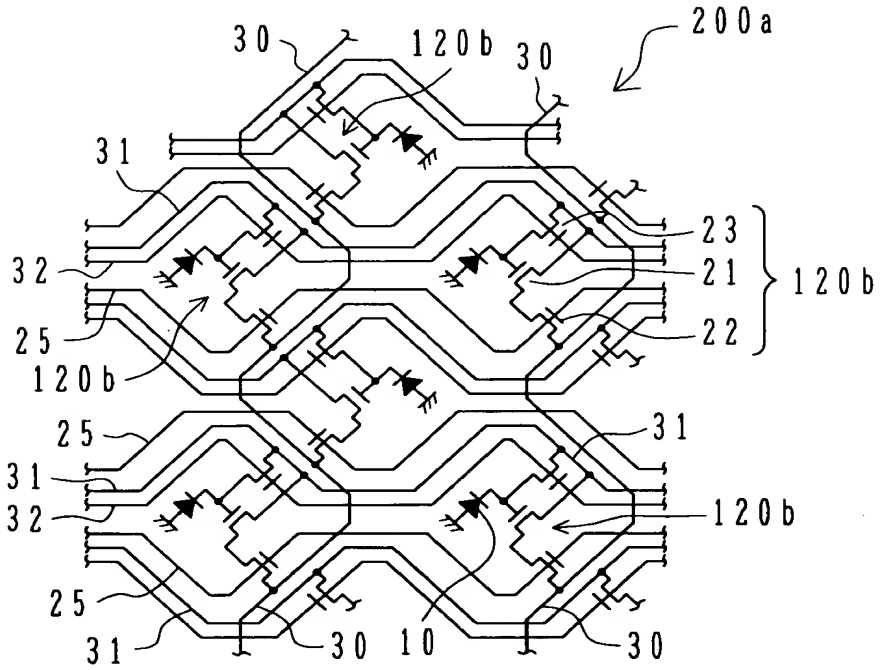
200a
30
120b
30
31
23
21
22
120b
32
25
120b
25
31
31
32
120b
25
31
30
10
30

FIG.12

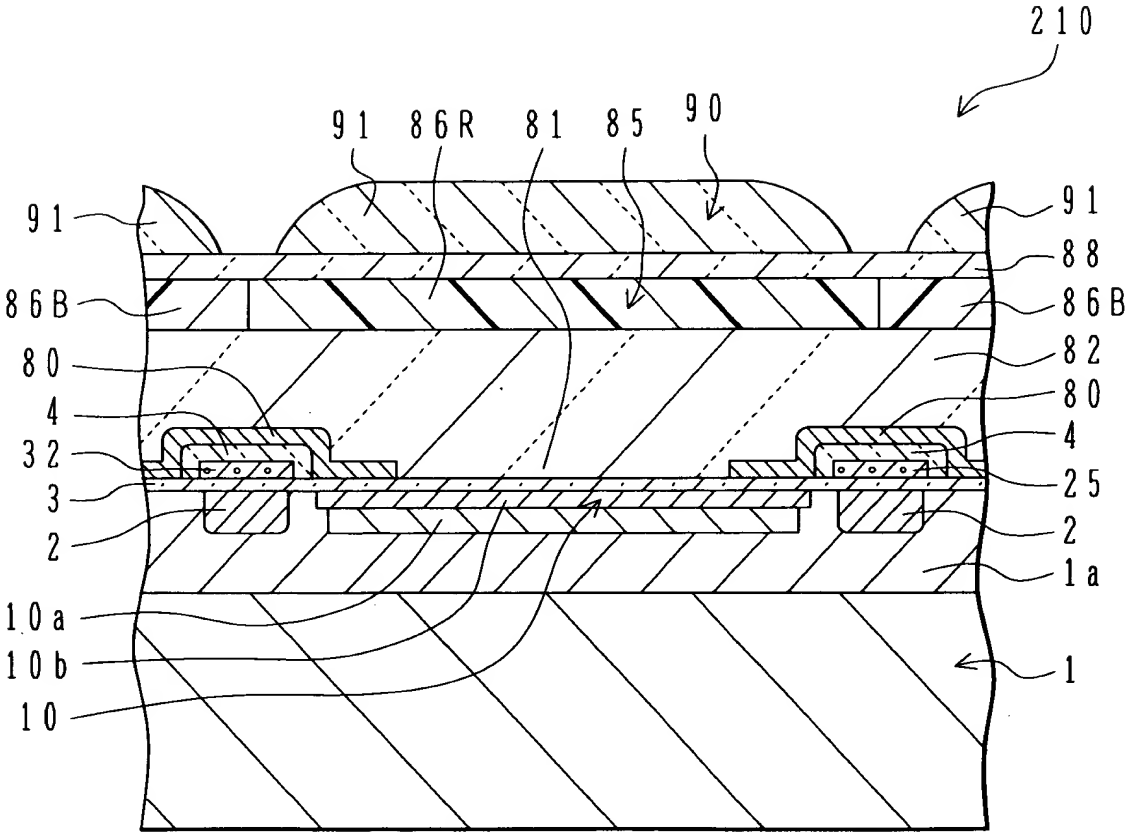

FIG.13A

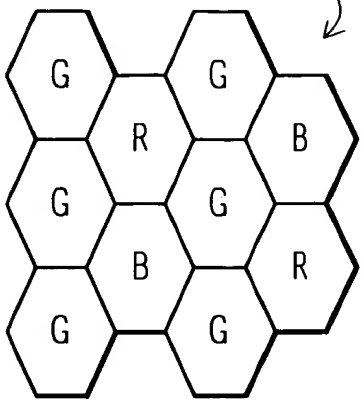

FIG.13B

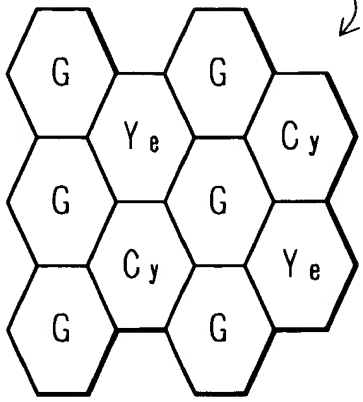

FIG.13C

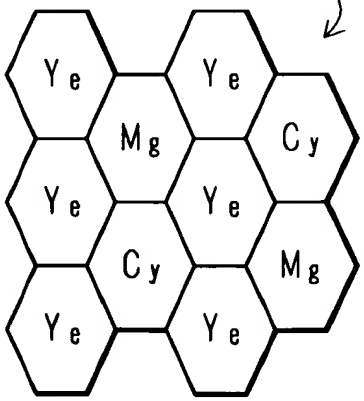

FIG.13D

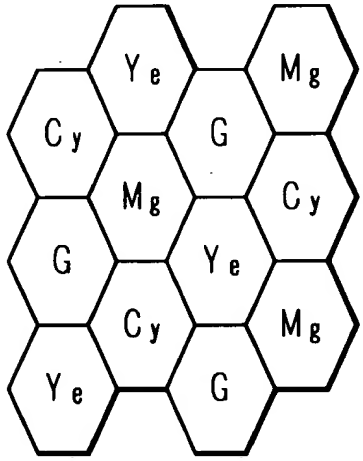
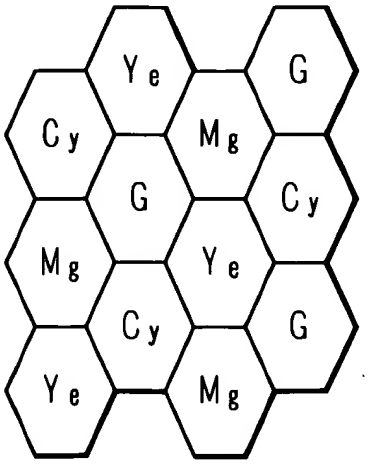
FIG.13E